

**Notice of Allowability**

Application No.

09/733,841

Examiner

Emmanuel Bayard

Applicant(s)

BETTS, WILLIAM L.

Art Unit

2631

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 11/1/04.
2. ☒ The allowed claim(s) is/are 29-55.
3. ☒ The drawings filed on 01 November 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Emmanuel Bayard  
Primary Examiner  
Art Unit: 2631

### DETAILED ACTION

This is in response to RCE filed on 11/1/04 in which claims 1-28 are canceled and claims 29-55 are pending. The applicant's RCE has been fully considered therefore this case is in condition for allowance. In addition the pending claims have been renumbered as 1-27 respectively.

#### *Allowable Subject Matter*

1. The following is an examiner's statement of reasons for allowance: The prior arts of record fail to anticipate or render obvious the following recited features: A gain calculation element configured to calculate at least a portion of the gain applied by the DMT transmitter to each of the plurality of transmit carrier tones, the gain based on a predetermined transmit signal spectrum associated with each of the plurality of transmit carrier tones and on a power measurement of each of the received carrier tones as recited in claim 29. Wherein the DMT transmitter is further configured to apply a gain to each transmit carrier tone before transmitting, the gain applied to each tone based on a corresponding one of the plurality of carrier tone scaling signals as recited in claim 38. Calculating at least a portion of the local gain, the calculated gain based on a predefined transmit signal spectrum associated with each of the plurality of transmit carrier tones and on a power measurement of each of the received carrier tones as recited in claims 43 and 50. Adjusting the local gain applied to the at least one transmit carrier tone, the calculated gain based on a predefined transmit signal spectrum associated with each of the plurality of transmit carrier tones and on a power measurement of each of the received carrier tones as recited in claim 46.

Art Unit: 2631

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Larsson et al U.S. patent No 6,452,987 B1 teaches a fast start-up in discrete multi-tone based communications system.

Sankaranarayanan et al U.S. Patent No 6,134,274 teaches a method and apparatus for allocating data for transmission via discrete multiple tones.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (3:PM -10:00PM) Alternate Friday off.

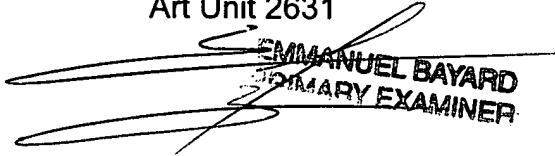
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2631

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard  
Primary Examiner  
Art Unit 2631

12/1/04



EMMANUEL BAYARD  
PRIMARY EXAMINER